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ABSTRACT

To determine whether linguistic programs are really different, the first problem is to find an acceptable definition of a linguistic program. Many publishers term their basal reading series linguistic, but they are basically designed to teach "code-breaking" and treat reading as a matter of simply breaking a spelling code. A desirable linguistic program should recognize the relationship of the accumulated knowledge of research in language acquisition and reading (e.g., Williams' study indicates that oral language ability does not improve under present teaching practices except for underachieving boys in the first years of school, and Rystrom's study indicated that teaching designed to aid children with dialect differences did not achieve the desired result). A linguistic program for teaching reading should (1) provide the teacher with definite means of determining the oral language readiness of the children; (2) provide the teacher with means of building upon the oral language of the children; (3) provide for teacher instruction in those aspects of linguistics important to a complete understanding and demonstration of oral and written language; (4) provide for materials of diagnosis and instruction for continued development of oral language competence; and (5) provide reading content developed according to natural oral language patterns. (HS)

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ARE LINGUISTIC PROGRAMS DIFFERENT?

The title of this session is "Linguistic" Programs: Are They Really Different? and my assignment is to furnish some background information and research on this topic. My first problem is to find an acceptable definition of a linguistic program. Some publishers have produced basal reading series which they term linguistic; is a linguistic program, then, simply a classroom program in which the medium of instruction is the "linguistic reader"? Many linguists do not consider these readers linguistically based. Rystrom (7) defines a linguistic reader as "any set of reading materials in which the phoneme-grapheme correspondences presented in the text have been sequenced". Dykstra (5), in his summary of the second grade phase of the first grade reading study, which compared various methods of teaching reading, said that the various materials included in the linguistic approach possessed most, if not all, of several characteristics:

1. There is an early introduction to letters, and knowledge of letter names and the ability to recognize letters are considered prerequisite skills for reading instruction.

2. Sound-symbol relationships are taught through careful sequencing of word patterns. Words with high sound-symbol regularity are taught first and the child is led to discover the sound-symbol relationships which exist. In many cases, the child is encouraged to use sound-symbol relationships as the basic word recognition technique by withholding from him such clues as pictures and word length.

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3. In many cases, there is less emphasis on understanding and comprehension in the early stages. Reading is considered a process of translating graphic symbols into sounds, and primary attention is paid to helping the child learn the decoding system.

Dietrich (4) says that in some linguistic readers, in addition to teaching the phoneme-grapheme relationship, attention also is given to syntax, pitch and stress, and a few of the newer series are beginning to stress comprehension. Seymour (9) has said that a linguistic approach to reading instruction points out the priority of speech and demonstrates that writing is merely a way of recording that same speech by the use of symbols. Consequently, a child who is taught reading from a linguistic point of view understands that a person who can speak can also learn to read and write. He knows that he will be in control of the symbols he uses to represent his language; the symbols will not control him. Saboroff (8) echoes these views and says that a linguistic approach helps children break the code and understand the operational system.

An important consideration in discussing any reading program is the teacher's knowledge of linguistics, and the way in which this knowledge affects her teaching. Barney (1) says that the professional literature is literally glutted with "so-called research studies" which attempt either to prove or to disprove the relative merits of the analytic, synthetic, or whole-word methods of teaching. He reasons that a teacher should know how to use all three methods effectively, but that a knowledge of historical linguistics will help to determine which words should be introduced with these three methods. He goes on to say that historical

linguistics can be a tool for teachers in eliminating the use of abbreviations by rote, applying silent letter combinations through sheer memory only, or other practices he considers questionable. The rationale and logic of historical linguistics underlying the uses and changes of languages make it easier for the teacher to determine the relative importance of what, why, how, and how much of an item should be taught. Jones (6) seconds the importance of the teacher's knowledge of linguistics in teaching reading, saying that the teacher should understand thoroughly the linguistic structure of the language she is using as a medium of teaching.

We may accept one of these definitions of a linguistic reader, but the original topic was linguistic programs. Can the use of a linguistic reader in the classroom be equated with a linguistic program? A linguistic program should include more activities than those offered in a basal reader, be it linguistic, phonic, or whole word. A linguistic program should recognize the relationship between the various aspects of language and reading processes and should take advantage of the accumulated knowledge of research in language acquisition and reading.

Rather than join the debate over which method of teaching reading will produce successful readers, let us look at some research studies which are concerned with language and reading, and which perhaps will contribute more to the teaching of reading as a result of the insights they may provide than the comparative and/or

contrastive methodological studies.

The recent controversy concerning the way in which reading should be taught to children who speak a dialect different from the dialect of the school has been discussed at great length with proponents of both sides extolling their positions. One theory is that children should learn to read in their own dialect, e.g., Black English reading materials for children who speak Black English. Another theory is that dialect speaking children can learn to read Standard English and that dialect interference will not affect the process of learning to read.

Rystrom's study, conducted in rural Georgia, replicating an earlier study in California, was designed to determine if Negro dialect is a cause of reading disability. Three hypotheses were investigated:

1. Negro children can be taught to use features of white speech which do not occur in their native dialect.
2. Knowledge of this additional dimension of dialect will have a positive and significant influence on word reading scores.
3. The use of phoneme-grapheme controlled readers will have a positive and significant influence on word reading scores.

The population consisted of four first grade classes in an all Negro school in Georgia. Rystrom examined the effects of dialect training upon children learning to read from two different types of reading series: a traditional basal reader and a linguistic basal reader. The control group used a traditional basal reader and received no dialect training. Two experimental groups were given dialect training with one using a traditional series and the other a linguistic series. The third

experimental group also used a linguistic series but were given no dialect training.

During the first semester all four groups concentrated upon the readiness skills presented in the basal series. At the beginning of the second semester two experimental groups switched to the linguistic readers and two groups received twenty minutes of language treatment daily for eighty days.

Two instruments were used as pre- and post-test measures. The Rystrom Dialect Test was used to evaluate dialect change attributable to dialect training, and the Gates Word Reading Test was used to indicate improvement in word reading. The reading sections of the Stanford Achievement Test were administered as post-tests to provide an index of general reading ability. The statistical technique employed was analysis of covariance with the pre-test scores used as the covariate.

All three hypotheses were rejected. Analysis of the data did not indicate significant differences between groups on dialect performance. The dialect test scores of the groups who did not receive dialect training were essentially the same as the performance scores of the groups who had training. No production differences occurred. The data from the Gates test did not indicate increased recognition of phoneme-grapheme correspondences as a result of the dialect training, and the use of phoneme-grapheme controlled readers did not have a significant influence on word reading scores.

Rystrom concluded that a dialect training program did not significantly increase the reading achievement scores of children who spoke a Negro dialect; dialect training, in fact, had a negative effect upon decoding skills.

Williams and others (11) investigated oral language performance to determine whether a positive relationship existed between grade level reading achievement and oral language performance. The population included sixty children from five schools, with twenty each from first, third, and fifth grades, all from low socio-economic backgrounds. The subjects were chosen by the classroom teacher on the basis of two factors: they were considered to have average academic ability, and to be non-failures in the classroom. The IQ range on the California Test of Mental Maturity was from 95 to 110. The teachers indicated that the subjects were reading in an average group. The grade level of each pupil's oral language was estimated by showing him three pictures from the Chandler Language Arts Series during the seventh month of the school year. Each pupil was asked three series of three questions with each series designed to initiate sequentially a literal, an interpretive, and a critical level of thought responses. The children's oral reactions were tape recorded and transcribed to provide an objective evaluation. Using the Dale Readability Formula, the average grade level of each pupil's oral language was determined from the recorded responses obtained from the three series of questions. In treating the data the extension of the Median Test was computed separately for boys' and girls' oral language scores. Significant variation was found for the boys' scores, but none for the girls' scores.

Results of the study indicated that the girls made no gains in level of conversation during the first five years of school, and the boys gained only between first

and third grade. The investigators concluded that for girls the present teaching methods were of no consequence in developing their oral language achievement, and for boys the methods appear to increase their oral expression solely during the beginning school years. The data suggested that the present methods may be helpful only to those of very low language skills, particularly boys during the first school years. Although Williams and his co-investigators acknowledged that the study was exploratory with a small and perhaps not entirely random sample of pupils of average mental ability from a low socio-economic level, they suggested that the present teaching of oral vocabulary is inadequate, and that there is a necessity for recognizing appropriate and effective oral language teaching procedures. The investigators felt that their findings concurred with other recent research which associates both inadequate oral language development and limited reading progress with three contributing causal factors: low economic home environment, middle grade peer slang influence, and poor teaching techniques.

Prediction can serve a useful purpose in diagnosis. If, at the beginning of first grade, or even earlier, a child's probable success or failure in reading could be estimated, the teacher could focus instruction on those particular aspects of reading with which the child is likely to encounter difficulty. Since language and reading are so closely related, it seems reasonable to assume that oral language might be a predictor of reading success.

Rodgers (2) investigated the predictive role of language competency on success in beginning reading on the rationale that the components of linguistic

maturity presumed to be related to reading success have not been clearly identified. From her synthesis of findings of investigations of children's language development, she hypothesized that promising indices of language development included: mean length of communication unit, ratio of sentence-combining transformations to communication units, ratio of subordinate clause length to length of communication unit, and measures of extent and diversity of vocabulary.

The study attempted to answer three questions:

1. Do selected factors identified in previous research as indices of maturity in children's use of oral language show a significant relationship to first grade reading achievement?

2. Do any selected oral language factors or combinations of these factors predict level of reading achievement as accurately as does a standardized reading readiness test?

3. How much do specific oral language factors and combinations of these factors add to the predictive value of a standardized reading readiness test?

The population consisted of sixty pupils in a south Chicago suburb attending first grade for the first time: two schools were located in a predominantly upper-middle class neighborhood, two in a middle class, and two in a lower class neighborhood.

Two types of reading achievement predictors were examined and compared: the Metropolitan Readiness Test, and seven experimental measures of syntactic and vocabulary factors in oral language selected on the basis of an extensive review of the previous research literature. Other measures included: the Kuhlman-Anderson Test, the Gray Oral Reading Test, and three subtests of the Stanford

Achievement Test. Bougere conducted individual interviews to obtain the language measures; the tapes were transcribed and analyzed syntactically.

Analysis of the data led Bougere to draw several conclusions. The value of the Metropolitan Readiness Test as a predictor of first grade word recognition achievement can be significantly increased by the addition of a measure of oral vocabulary range plus a measure of oral vocabulary diversity; an even greater increase can be produced by the addition of all the experimental linguistic predictors used in the study. The value of the Metropolitan as a predictor of first grade comprehension achievement can be significantly increased by the addition of a measure of average T-unit length. However, the value of the test as a predictor of first grade achievement in vocabulary or in oral reading cannot be significantly increased by the addition of any one or any of several combinations of the linguistic predictors used in this study.

Bougere listed several practical implications which are helpful to first grade teachers who wish to assess the linguistic competency of their pupils. The child's volubility in the classroom is a highly doubtful indication of his linguistic competency as it is related to reading achievement. The most useful predictors were mean T-unit length and range and diversity of vocabulary. Results of the study indicated the need for repeated and varied language observations. The teacher who desires a dependable assessment of the pupil's linguistic competency must extend his observations beyond the classroom to children in varied situations.

After reviewing numerous studies in language acquisition, Brittain (3)

reported that when children enter school, they generally have not mastered English morphology and hypothesized that some of the difficulties children experience in learning to read may be due to a pedagogical failure to recognize and adapt to their level of linguistic development. The objectives of her study were to assess the relationship between children's inflectional performance and reading achievement and to explore possible grade and sex differences in these relationships. Britain first assessed children's learning of inflectional rules and then examined the relationship between reading achievement and inflectional performance.

The measure of inflectional performance used was a revision of Berko's test; subjects were 79 first and 55 second grade children in a suburban northern Virginia community. Results of the individually administered test supported the hypothesis that in the child's linguistic development the application of inflections proceeds from the simple to the complex. Performance on the simple items was similar for both first and second grade children, but the second graders performed slightly better on the complex items. No differences in inflectional performance due to sex were found. Apparently the traditional linguistic superiority of girls does not hold true for the area of morphological ability measured by the test, for no differences in inflectional performance due to sex were found.

The number of subjects used in analyzing the relationship between reading achievement and inflectional performance totaled 56 first and 52 second grade children. The Primary Reading Profiles and the Lorge-Thorndike Intelligence Tests were used to measure reading achievement and intelligence. Britain found a

significant relationship between inflectional performance and reading achievement at both first and second grade levels and suggested several explanations. Two sorts of information are provided by inflections: semantic information signalling number, tense, etc., and grammatical information marking words as members of form classes such as nouns and verbs. Which of these two aspects is more important for reading comprehension is not clear; both may be relevant. Inflectional skill may contribute to reading ability by providing congruence between incoming visual stimuli and speech responses to which they may be attached.

As anticipated, the correlations between reading ability and inflectional performance increased from grade one to two. Brittain attributed this increase to two factors. There is a marked increase in the number of inflected forms in basal reading materials from first to second grade. It may be that children, who after completing second grade, still have not mastered the morphophonological rules of their language are evidencing a genuine linguistic retardation which would be expected to hamper their progress in the reading aspect of the language arts.

Why girls show greater facility than boys in the process of becoming literate was answered only partially and in a negative fashion in the study, but apparently the superior early reading achievement of girls is not due to superior inflectional skill.

Brittain concluded that morphology has structural significance in the process of learning to read and considered the finding both linguistically and psychologically relevant for beginning reading. If this relatively minor component of the English

grammatical system contributes significantly to the reading achievement of first and second grade children, then certainly the careful appraisal of children's linguistic status should be prerequisite to the initiation of formal instruction in reading.

Materials used in teaching reading have long been under attack; frequently the criticism is concerned with the subject matter--it may be alien to the children reading it; it may be dull, or there are too many or too few illustrations. Usually the vocabulary in reading series is controlled; however, the language patterns are less often related to language children use in speaking. Tatham (10) investigated the relationship between reading comprehension and materials written with select oral language patterns at second and fourth grades. The relation of sex to reading comprehension of the patterns was also considered, for the investigator hoped to contribute to the dialogue of those who have found significant sex differences in language abilities.

Three questions were posed:

1. Do significantly more second and fourth graders comprehend material written with frequent oral language patterns better than material written with infrequent oral language patterns?

2. Do fourth graders comprehend material written with frequent and infrequent oral language patterns significantly better than second graders?

3. Do second and fourth grade girls comprehend material written with frequent and infrequent oral language patterns significantly better than second and fourth grade boys?

Two reading comprehension tests were constructed for the study: Test A included language patterns that appear frequently in the oral language of both second and fourth grade children, and Test B was comprised of language

patterns that appear infrequently in their oral language. The tests were a series of sentences with three pictures drawn for each sentence. The reader selected the picture that best described the sentence and drew a line from the sentence to the picture. The Paragraph Meaning section of the Stanford Achievement Test was also administered.

The population consisted of seven second and six fourth grade classrooms in two elementary schools in Madison, Wisconsin, with a mean IQ score on the Lorge-Thorndike of 105.6 and a range from 76 to 145. All of the subjects were from a middle socio-economic background.

Analysis of the data revealed that a significant number of subjects attained a higher reading comprehension score on Test A which included language patterns that appear frequently in oral language than on Test B. Fourth graders scored higher on both tests than second graders, an anticipated finding, since reading is a skill which improves with practice and experience. Girls did consistently better than boys, but with one exception, the difference was not significant.

Tatham listed several implications of her study. It is both logical and consistent with linguistic knowledge to use children's patterns of language structure in written material to facilitate learning the concept that spoken and written language are related. The findings suggest that children would benefit from control over sentence patterns until they can untangle word relationships in any number of infrequent patterns. Writers of children's materials should consider the use of language patterns that will assist the children to comprehend when the

goal is maximum comprehension. Tatham felt that vocabulary control is not the only logical and desirable control when comprehension of language structure is essential.

The studies reviewed here have produced results which do not tell a teacher how to teach reading; rather, they provide information which can be applied in reading instruction. A linguistic program involves more than the use of a linguistic reader; the activities carried on in the classroom are based on the accumulated knowledge from research in both language and reading, and on the teacher's knowledge about language and linguistics.

It is obvious that of the presently available reading programs those which publishers call linguistic do not, in fact, supply all the needs that are desirable in a linguistic program. In general they do provide for careful teaching of letter and sound-symbol relationships and some do show concern for the fact that writing is a written form of oral language. Some even indicate that language is a matter of stress and intonation as well as words and letters. Basically the reading programs are designed to teach "code-breaking" but they treat reading as a matter of simply breaking a spelling code.

A desirable linguistic program should contain much more than a teachable analysis of the spelling code of written language. It is quite obvious that written language is related to and based upon oral language. Yet the William study indicates that oral language ability does not improve under present school teaching practices except for underachieving boys and then only in the first years of school.

That dialect differences may affect language learning and particularly learning to read has been hotly debated. Yet Rystrom's study indicated that teaching designed to aid children with dialect differences did not achieve the desired result. Bougere's study demonstrated the importance of oral language vocabulary and the child's use of sentences to his achievement in reading comprehension. Brittain's study indicated that children's skill in the morphological aspects of language was significantly related to reading success. The final point of inquiry of the examined studies was that of the reading content of reading programs. Here the Tatham study showed clearly that material written in the natural language patterns of speech were more successfully read than materials written in the typical reader patterns. The hypothesis that language patterns are more important to control than vocabulary is obvious.

At this point it appears that a linguistic program has yet to be written which will meet standards about which we now know enough to begin writing. While the following list is in no way intended to be complete, it does rest upon acceptable linguistic theory and some evidence:

A linguistic program for teaching reading should:

1) provide the teacher with definite means of determining the oral language readiness of the children to be instructed,

2) provide the teacher with means of building upon the oral language of the children to be instructed,

3) provide for teacher instruction in those aspects of linguistics important to a complete understanding and demonstration of oral and written language,

4) provide for materials of diagnosis, and instruction for continued development of oral language competence, and

5) provide reading content developed according to natural oral language patterns.

The title of this session is "Linguistic" Programs: Are They Really Different? My conclusion is that existing programs are different in that they focus upon a more reasonable attempt at breaking the spelling code than either the phonics readers of the past and present or the "look-and-say" readers of the immediate past, but that they are not "linguistic" in that they do not provide the kind of diagnosis or instruction that will help children who speak dialects other than Standard English to attain the language and reading competence of which they are capable. In fact, it is highly probable that the language development of an average or superior child is not aided and may even be harmed by existing reading programs.

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